DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

WELDING INSPECTION REPORT

Resident Engineer: Pursell, Gary **Report No:** WIR-012672 Address: 333 Burma Road **Date Inspected:** 16-Mar-2010

City: Oakland, CA 94607

OSM Arrival Time: 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

CWI Name: CWI Present: Yes Li Yang No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:**

34-0006 **Bridge No: Component:** Trial Assembly

Summary of Items Observed:

On this day Caltrans OSM Quality Assurance (QA) Inspector Christopher D'souza was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhen Hua Port Machinery Company (ZPMC) at Chang Xing Island in Shanghai, China. QA Inspector observed and/or found the following:

Heavy Dock

This QA Inspector was present at Heavy Dock at the time noted above to observe ZPMC lifting and loading OBG LIFT 5 West from Heavy Dock onto the Ship

Trial Assembly

This QA Inspector performed Ultrasonic Testing (UT) on approximately 10% of OBG components previously accepted by ZPMC ultrasonic technicians in accordance with AWS D1.5-2002, section 6, table 6.3 and Detection of Transverse Planar Discontinuities with Significant Flaw Height Dimension Procedure. The QA Inspector observed rejectable indications at the time of testing. Weld identification numbers were

CA025-001

This QA Inspector performed conventional UT (Ultrasonic Testing) in conjunction with ABF UT department for detection of planar transverse indication.

WELDING INSPECTION REPORT

(Continued Page 2 of 3)

See Caltrans Ultrasonic Transverse Indication Evaluation sheet dated March 17th, 2010 for further information on inspection.

7AE - 7BE

This QA Inspector observed ZPMC QC Inspectors performing Ultrasonic Testing (UT) on 7AE – 7BE splice weld (Side Plate – bike path (BK) side and Cross Beam (CB) side.

CA 040-004

This QA Inspector observed ZPMC welding personals identified as 058087 performing Shielded Metal Arc welding (SMAW) on CA 040-004. ZPMC QC is identified as Sun Bai Zheng. The welding variables recorded by QC appeared to comply with the WPS-345-SMAW-2G(2F)-FCM-REPAIR 1 and B-CWR1227

7AW-7BW Deck

This QA Inspector observed ZPMC welding personals identified as 045196, 066361, 066326, 067752, 067589 performing Shielded Metal Arc welding (SMAW) on 7AW Transverse splice OBW7-003(Deck Plate). ZPMC QC is identified as Zong Yong Gang. The welding variables recorded by QC appeared to comply with the WPS-B-2214-B-U2-FCM-1

7BE-7CE Deck Splice

Removal of temporary attachments by Oxy fuel cutting

7AE-7BE Deck Splice

This QA Inspector observed ZPMC personnel performing repairs by grinding on areas where temporary attachments were removed

This QA Inspector observed ZPMC welding personals identified 037932, 067183 performing Shielded Metal Arc welding (SMAW) on 7AE-7BE Transverse splice (Side Plate Bike Path side). ZPMC QC is identified as Zong Yong Gang. The welding variables recorded by QC appeared to comply with the WPS-B-P-2214-B-U2-FCM-1

This QA Inspector was involved in PAUT (Phased Array Ultrasonic Testing) training for detection of cracked tacks in Deck Panels as per the following procedure "UT 04-0120F4 PJP Rib Weld Phased Array Ultrasonic Testing for the Detection and Sizing of Suspected Planar Discontinuities (Cracks) in PJP Welds"

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.

Summary of Conversations:

WELDING INSPECTION REPORT

(Continued Page 3 of 3)

No relevant conversations.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Dsouza, Christopher	Quality Assurance Inspector
Reviewed By:	Carreon, Albert	QA Reviewer